

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-29 (Canceled)

Claim 30 (Currently amended): A replica disk made from a replication process ~~that which~~ includes creation of a master disk, creation of a first-generation stamper from the master disk and creation of a second-generation stamper from the first-generation stamper, the replica disk comprising:

a replica substrate having a first major surface and a second major surface, the first major surface including a surface relief pattern defined by adjacent lands and grooves, the surface relief pattern having a track pitch less than 425 nanometers, wherein the grooves extend down into the replica substrate, the grooves including groove bottoms and the lands including land tops, wherein the land tops are wider than the groove bottoms.

Claim 31 (Previously presented): The replica disk of claim 30, wherein the land tops are generally flat and coplanar.

Claim 32 (Currently amended): The replica disk of claim 30, wherein the grooves define a groove depth ~~that which~~ is greater than 20.50-nanometers.

Claim 33 (Currently amended): The replica disk of claim 30, wherein widths of the land tops are greater than 80.100-nanometers.

Claim 34 (Previously presented): The replica disk of claim 30, wherein widths of the land tops are greater than 250 nanometers.

Claim 35 (Previously presented): The replica disk of claim 30, wherein the replica disk is created from the second-generation stamper.

Claim 36 (Currently amended): A replica disk made from a replication process ~~that which~~ includes creation of a master disk, creation of a first-generation stamper from the master disk and creation of a second-generation stamper from the first-generation stamper, the replica disk comprising:

a replica substrate having a first major surface and a second major surface, the first major surface including a surface relief pattern defined by adjacent lands and grooves, the surface relief pattern having a track pitch less than 425 nanometers, wherein the grooves extend down into the replica substrate, the grooves including groove bottoms and the lands including land tops, wherein a width of the land tops is greater than 25 percent of the track pitch.

Claim 37 (Previously presented): The replica disk of claim 36, wherein the land tops are flat and coplanar and wherein the land tops include sharp corners.

Claim 38 (Previously presented): The replica disk of claim 36, wherein the grooves define a groove depth between 20 and 120 nanometers.

Claim 39 (Previously presented): The replica disk of claim 36, wherein the width of the land tops is greater than 35 percent of the track pitch.

Claim 40 (Previously presented): The replica disk of claim 39, wherein the width of the land tops is greater than 50 percent of the track pitch.

Claim 41 (Previously presented): The replica disk of claim 36, wherein the replica disk is created from the second-generation stamper.

Claim 42 (Currently amended): A replica disk made from a replication process ~~that~~ which includes creation of a laser etched master disk, creation of a first-generation stamper from the laser etched master disk and creation of a second-generation stamper from the first-generation stamper, the replica disk comprising:

a replica substrate having a first major surface and a second major surface, the first major surface including a surface relief pattern defined by adjacent lands and grooves, the surface relief pattern defining a track pitch less than 2 multiplied by a laser spot size associated with a laser used to perform laser etching of the laser etched master disk, wherein the track pitch is less than 700 nanometers.

Claim 43 (Previously presented): The replica disk of claim 42, wherein the track pitch of the surface relief pattern is less than 425 nanometers and a width of tops of the lands is greater than 25 percent of the track pitch.

Claim 44 (Previously presented): The replica disk of claim 43, wherein the width of the tops of the lands is greater than 35 percent of the track pitch.

Claim 45 (Previously presented): The replica disk of claim 42, wherein tops of the lands are flat and coplanar and include sharp corners.

Claim 46 (Previously presented): The replica disk of claim 42, wherein the track pitch is less than 1.6 multiplied by the laser spot size.

Claim 47 (Previously presented): The replica disk of claim 42, wherein the replica disk is created from the second-generation stamper.

Claim 48 (New): A replica disk comprising:

a replica substrate having a first major surface and a second major surface, the first major surface including a surface pattern defined by lands and grooves, the surface relief pattern defining a track pitch less than approximately 700 nanometers,

wherein groove depths of the grooves are less than approximately 120 nanometers deep,
and

wherein land tops of the lands are less than approximately 200 nanometers wide.

Claim 49 (New): The replica disk of claim 48, wherein the track pitch is less than approximately 425 nanometers.

Claim 50 (New): The replica disk of claim 48, wherein the groove depths of the grooves are less than approximately 100 nanometers deep.

Claim 51 (New): The replica disk of claim 50, wherein the groove depths of the grooves are less than approximately 80 nanometers deep.

Claim 52 (New): The replica disk of claim 51, wherein the groove depths of the grooves are less than approximately 60 nanometers deep.

Claim 53 (New): The replica disk of claim 48, wherein land tops of the lands are less than approximately 180 nanometers wide.

Claim 54 (New): The replica disk of claim 53, wherein land tops of the lands are less than approximately 160 nanometers wide.

Claim 55 (New): The replica disk of claim 54, wherein land tops of the lands are less than approximately 140 nanometers wide.

Claim 56 (New): The replica disk of claim 55, wherein land tops of the lands are less than approximately 120 nanometers wide.

Claim 57 (New): The replica disk of claim 56, wherein land tops of the lands are less than approximately 100 nanometers wide.

Claim 58 (New): A replica disk made from a replication process that includes creation of a master disk, creation of a first-generation stamper from the master disk and creation of a second-generation stamper from the first-generation stamper, the replica disk comprising:

a replica substrate having a first major surface and a second major surface, the first major surface including a surface relief pattern defined by lands that correspond to interrupted grooves formed in the master disk, wherein land tops of the lands are less than approximately 200 nanometers wide.

Claim 59 (New) The replica disk of claim 58, wherein a track pitch of the replica disk defined by radially adjacent lands is less than approximately 425 nanometers.

Claim 60 (New): The replica disk of claim 58, wherein land tops of the lands are less than approximately 180 nanometers wide.

Claim 61 (New): The replica disk of claim 60, wherein land tops of the lands are less than approximately 160 nanometers wide.

Claim 62 (New): The replica disk of claim 61, wherein land tops of the lands are less than approximately 140 nanometers wide.

Claim 63 (New): The replica disk of claim 62, wherein land tops of the lands are less than approximately 120 nanometers wide.

Claim 64 (New): The replica disk of claim 63, wherein land tops of the lands are less than approximately 100 nanometers wide.